STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

The Jackson Laboratory
Hancock County
Bar Harbor, Maine
A-93-71-U-R (SM)

Departmental
Findings of Fact and Order
Air Emission License

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. The Jackson Laboratory (JL) has applied to renew their Air Emission License permitting the operation of emission sources associated with their biomedical research facility.

2. The equipment addressed in this license is located at 600 Main Street, Bar Harbor, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur	Stack #
Boiler #2	10.5	75.0	#2 Fuel Oil, 0.34%	1
Boiler #3	10.5	75.0	#2 Fuel Oil, 0.34%	1
Boiler #7	33.5	239.3	#2 Fuel Oil, 0.34%	5
Boiler #8	33.5	239.3	#2 Fuel Oil, 0.34%	5
Boiler #9	12.5	89.3	#2 Fuel Oil, 0.34%	5
Boiler #10	20.9	149.3	#2 Fuel Oil, 0.34%	1
Boiler #11	20.9	149.3	#2 Fuel Oil, 0.34%	1

Electrical Generation Equipment

Equipment	Power Output (kW)	Maximum Capacity (MMBtu/hr)	Firing Rate (gal/hr)	Stack #
Generator #2	230	2.33	17.0	4G
Generator #3	250	2.46	18.0	5G
Generator #6	1250	12.47	91.0	1G
Generator #8	1500	15.43	112.6	8G
Generator #9	1500	15.43	112.6	9G
Generator #10	1500	15.43	112.6	10G

Note: Previously licensed Generator #5 has been taken out of service and all associated switchgear has been removed from the site. Therefore, JL has requested it be removed from this air emission license.

Process Equipment

Equipment	Pollution Control Equipment
Ethylene Oxide Sterilization Units (2)	None

Underground Petroleum Storage Tanks

- One 2,000 gallon gasoline tank

Incinerators

Incinerator #1 is a Consumat Model C75-P2H with the following specifications:

Class Incinerator	IV-B	
No. of Chambers	2	
Type of Waste	types 0-5, 7	
Max. Design Combustion Rate (lb/hr)	175	
Auxiliary Fuel Input:		
Primary Chamber (Btu/hr)	700,000	#2 fuel oil
Secondary Chamber (Btu/hr)	4,000,000	#2 fuel oil
Emissions Control	Secondary Chamber	

Incinerator #2 is a Consumat Model C75-P1 with the following specifications:

Class Incinerator	IV-A	
No. of Chambers	2	
Type of Waste	types 0-4	
Max. Design Combustion Rate (lb/hr)	175	
Auxiliary Fuel Input:		
Primary Chamber (Btu/hr)	700,000	#2 fuel oil
Secondary Chamber (Btu/hr)	2,000,000	#2 fuel oil
Emissions Control	Secondary Chamber	

C. Application Classification

The application for JL does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005). With the fuel limit on the boilers and the operating hours restriction on the emergency generators, the facility is licensed below the major source thresholds and is considered a synthetic minor.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers

JL operates Boilers #2, #3, #7, #8, #9, #10, and #11 primarily for facility hot water and heating needs.

Boilers #2, #3, #7, and #8 were manufactured prior to 1989 and are therefore not subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

Boilers #9, #10, and #11 are subject to NSPS Subpart Dc standards.

A summary of the BPT analysis for Boilers #2 and #3 (10.5 MMBtu/hr each), Boilers #7 and #8 (33.5 MMBtu/hr each), Boiler #9 (12.5 MMBtu/hr), and Boilers #10 and #11 (20.9 MMBtu/hr each) is the following:

1. The total fuel use for the boilers shall not exceed 2,250,000 gal/year of #2 fuel oil, based on a 12 month rolling total, with a maximum sulfur content not to exceed 0.34% by weight.
2. *Low Sulfur Fuel*, 06-096 CMR 106 (last amended June 9, 1999) regulates fuel sulfur content, however in this case it was determined a more stringent limit of 0.34% was required in order to meet Ambient Air Quality Guidelines and Standards.
3. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. However, in this case a BPT analysis determined that a more stringent limit of 0.08 lb/MMBtu was appropriate. The PM_{10} limits are derived from the PM limits.
4. NO_x emission limits are based on data from similar #2 oil fired boilers of this size and age.
5. CO and VOC emission limits are based upon AP-42 data dated 9/98.
6. Visible emissions from Stack #1 (Boilers #2, #3, #10, and #11) and Stack #5 (Boilers #7, #8, and #9) shall each not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period of not more than 27% opacity.

C. Emergency Generators

JL operates six back up emergency diesel generators. All six generators were ordered prior to July 11, 2005 and manufactured before April 1, 2006. Therefore, JL's generators are not subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

Due to the potential for tight electricity supplies, ISO New England has taken several precautionary steps to ensure the reliability of the region-wide bulk power system. One of those steps is the implementation of the Demand Response Program. This program offers financial incentives to customers, such as JL, to reduce electricity demand during peak periods. This program can significantly improve the reliability of the region-wide bulk power system and hopefully allow ISO New England to avoid drastic measures, such as brown outs.

In order for JL to participate in the Demand Response Program, they need to start their generators and run them prior to, or in lieu of, loss of off-site power. JL will only operate in this manner if there is a documented request from ISO New England under their emergency OP-4 procedures. ISO New England's OP-4 is a procedure which establishes criteria and guidelines for actions during capacity deficiencies. OP-4 is implemented when there is determined to be a serious threat to the integrity of the bulk power system. Therefore, the Department has agreed to redefine the term "emergency" as it applies to JL's generators to include ISO New England OP-4 emergencies.

Therefore "Emergency Generator", as it applies to JL, is defined as any stationary internal combustion engine whose operation is limited to emergency situations, required testing and maintenance, and ISO New England OP-4 emergencies. Examples include stationary engines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary engines used to pump water in the case of fire or flood.

Additionally, JL shall only be permitted to operate their generators in response to an OP-4 emergency for a total of no more than 50 hours each calendar year.

A summary of the BPT analysis for Generators #3 (250 kW each), Generator #2 (230 kW), Generator #6 (1250 kW), and Generators #8, #9, and #10 (1500 kW each) is the following:

1. The emergency generators shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.
2. Generators #2, #3, and #6 shall each be limited to 500 hr/yr of operation based on a 12 month rolling total.
3. Generators #8, #9, and #10 shall each be limited to 300 hr/yr of operation based on a 12 month rolling total.
4. Each generator shall be limited to 50 hours per year of operation in response to an OP-4 emergency.

5. All limits on operating hours are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
6. 06-096 CMR 106 regulates fuel sulfur content, however in this case a BPT/BACT analysis for SO_2 determined a more stringent limit of 0.05% was appropriate and shall be used.
7. 06-096 CMR 103 regulates PM emission limits for Generators #6, #8, #9, and #10. The PM_{10} limits and the PM limits for Generators #2, #3, and #5 are derived from 06-096 CMR 103.
8. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
9. Visible emissions from the emergency generators shall each not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

D. Incinerator #1

Incinerator #1 is a Consumat C75-P2H Class IV-B incinerator for disposal of type 0 through 5 and type 7 wastes only.

In Air Emission License Amendment A-93-71-K-A, JL revised its permit to designate the Consumat C-75-P-2H (Incinerator #1) as a co-combustor according to 40 CFR Part 60, Subpart Ce. As such, Incinerator #1 was restricted to the firing of not more than 10% by weight of infectious waste, as defined by the State of Maine Biomedical Waste Management Rules, 06-096 CMR 900, Sections 7.A. and 7.B., based on the total weight of waste(s) and fuel combusted.

To meet the requirements of BPT the incinerator shall be operated according to the following specifications:

1. Operating temperature in the secondary chamber shall be maintained at or above 2000 °F with a stack gas retention time, at or above 2000 °F, of at least 2.0 second.
2. To insure an efficient burn, and to prevent odors and visible emissions, the secondary chamber will be preheated, as specified by the manufacturer.
3. The temperature in the secondary chamber shall be maintained at or above 2000 °F for the duration of the burn cycle.
4. A pyrometer and 1/4 inch test port shall be installed and maintained at that location of the incinerator which provides sufficient volume to insure a flue gas retention time of not less than 2.0 seconds at a minimum of 2000 °F.
5. A log will be maintained recording the weight of the waste charged, preheat time, charging time and the temperature of the secondary chamber every 60 minutes after start-up until, and including, final shutdown time. For facilities

operating a chart recorder, the start time, date, and weight of waste charged may be logged on the chart.

6. A maximum particulate emission rate of 0.10 gr/dscf corrected to 7% O_2 will be met.
7. The ash will be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management.
8. The incinerator operator(s) shall receive adequate training annually to operate the incinerator in accordance with the manufacturer's specifications and shall be familiar with the terms of the Air Emission License. All training records shall be certified by the plant manager and be available to the Department upon request.

E. Incinerator #2

Incinerator #2 is a Consumat C75-P1 Class IV-A incinerator for the disposal of types 0 through 4 waste only. To meet the requirements of BPT the incinerator shall be operated according to the following specifications:

1. Operating temperature in the secondary chamber shall be maintained at or above 1800 °F with a stack gas retention time, at or above 1800 °F, of at least 1.0 second.
2. To insure an efficient burn, and to prevent odors and visible emissions, the secondary chamber will be preheated, as specified by the manufacturer.
3. The temperature in the secondary chamber shall be maintained at or above 1800 °F for the duration of the burn cycle.
4. A pyrometer and 1/4 inch test port shall be installed and maintained at that location of the incinerator which provides sufficient volume to insure a flue gas retention time of not less than 1.0 seconds at a minimum of 1800 °F.
5. A log will be maintained recording the weight of the waste charged, preheat time, charging time and the temperature of the secondary chamber every 60 minutes after start-up until, and including, final shutdown time. For facilities operating a chart recorder, the start time, date, and weight of waste charged may be logged on the chart.
6. A maximum particulate emission rate of 0.10 gr/dscf corrected to 7% O_2 will be met.
7. The ash will be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management.
8. The incinerator operator(s) shall receive adequate training to operate the incinerator in accordance with the manufacturer's specifications and shall be familiar with the terms of the Air Emission License.

F. Other Emission Sources

The Jackson Laboratory also operates two (2) ethylene oxide sterilization units at this facility. The emissions from each of these units are greater than 20% of the insignificant threshold as stated in 06-096 CMR 115 and therefore must be addressed. These units shall be operated according to the manufacturers specifications to ensure that the emissions of ethylene oxide (a HAP) will be minimal. JL shall not emit more than 1.0 ton/year of ethylene oxide.

JL has a 2,000 gallon tank that dispenses gasoline to motor vehicles. *Gasoline Dispensing Facilities Vapor Control*, 06-096 CMR 118 (last amended July 25, 1995) requires the installation of a submerged fill pipe and maintenance of throughput records for all gasoline dispensing facilities, regardless of throughput. JL shall install a submerged fill pipe in the gasoline storage tank that is no more than 6 inches from the bottom of the tank. JL shall also maintain on its premises, records of gasoline throughput, which will allow the monthly and annual throughput to be determined. If JL's monthly or annual throughput ever exceeds the initial applicability threshold for the Stage I provisions of 06-096 CMR 118, JL shall notify the Department of its applicability within thirty (30) days and install a Stage I Vapor Balance System in accordance with Section 3(B)(1) of the regulation, within sixty (60) days. Copies of these records shall be maintained for a minimum of three (3) years. These records shall be available for inspection during normal business hours and copies shall be provided to the Department and/or EPA upon request.

G. Annual Emissions

JL shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

	PM	PM_{10}	SO_2	NO_x	CO	VOC	HAP
Boilers	12.6	12.6	53.9	47.3	5.6	0.2	-
Generator #2	0.1	0.1	0.1	2.6	0.6	0.2	-
Generator #3	0.1	0.1	0.1	2.7	0.6	0.2	-
Generator #6	0.4	0.4	0.2	10.0	2.7	0.3	-
Generator #8	0.3	0.3	0.1	4.3	2.0	0.2	-
Generator #9	0.3	0.3	0.1	4.3	2.0	0.2	-
Generator #10	0.3	0.3	0.1	4.3	2.0	0.2	-
Incinerator #1	3.0	3.0	4.2	9.3	0.8	0.4	-
Incinerator #2	3.0	3.0	4.2	9.3	0.8	0.4	-
Sterilizers	-	-	-	-	-	-	0.8
Total TPY	**20.1**	**20.1**	**64.0**	**94.1**	**17.1**	**2.3**	**0.8**

III. AMBIENT AIR QUALITY ANALYSIS

JL previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards. This analysis was documented in air emission license A-93-71-S-A (November 6, 2006). An additional ambient air quality analysis is not required for this renewal.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-93-71-U-R subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The

Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
2. pursuant to any other requirement of this license to perform stack testing.

B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such

occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Boiler #1**

A. Total fuel use for all boilers combined shall not exceed 2,250,000 gal/yr of #2 fuel oil with a maximum sulfur content not to exceed 0.34% by weight. Compliance shall be demonstrated by fuel records from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #2	PM	0.08	06-096 CMR 115, BPT
Boiler #3	PM	0.08	06-096 CMR 115, BPT
Boiler #7	PM	0.08	06-096 CMR 115, BPT
Boiler #8	PM	0.08	06-096 CMR 115, BPT
Boiler #9	PM	0.08	06-096 CMR 115, BPT
Boiler #10	PM	0.08	06-096 CMR 115, BPT
Boiler #11	PM	0.08	06-096 CMR 115, BPT

C. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #2	0.84	0.84	3.60	3.15	0.38	0.02
Boiler #3	0.84	0.84	3.60	3.15	0.38	0.02
Boiler #7	2.68	2.68	11.47	10.05	1.20	0.05
Boiler #8	2.68	2.68	11.47	10.05	1.20	0.05
Boiler #9	1.00	1.00	4.28	3.75	0.45	0.02
Boiler #10	1.67	1.67	7.16	6.27	0.75	0.03
Boiler #11	1.67	1.67	7.16	6.27	0.75	0.03

D. Visible emissions from Stack #1 (Boilers #2, #3, #10, and #11) and Stack #5 (Boilers #7, #8, and #9) shall each not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average per hour of not more than 27% opacity. [40 CFR Part 60, Subpart Dc and 06-096 CMR 115, BPT]

(17) **New Source Performance Standards for Boilers #9, #10, and #11**

Boilers #9, #10, and #11 are subject to Federal New Source Performance Standards, Subpart Dc. JL shall comply with all requirements of 40 CFR Part 60, Subpart Dc including, but not limited to, the following:

A. JL shall keep records on file that they submitted notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up. This notification shall include the design heat input capacity of the boilers and the type of fuel to be combusted.

B. JL shall keep records on file that they performed and submitted to EPA and the Department an initial performance within the timeframe prescribed by the NSPS. The performance test consists of fuel supplier certification(s) of the sulfur content of the fuel fired in Boilers #9, #10 and #11. The fuel supplier certification must contain the name of the oil supplier and a statement from the oil supplier that the oil complies with ASTM specifications for #2 fuel oil.

C. JL shall record and maintain records of the amounts of each fuel combusted during each day.

D. JL shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period.

E. The following address for EPA shall be used for any reports or notifications required to be copied to them:

Compliance Clerk
USEPA Region 1
1 Congress Street
Suite 1100
Boston, MA 02114-2023

(18) **Emergency Generators**

A. JL shall limit Generators #2, #3, and #6 to 500 hr/yr of operation each (based on a 12 month rolling total). [06-096 CMR 115, BPT]

B. JL shall limit Generators #8, #9, and #10 to 300 hr/yr of operation each (based on a 12 month rolling total). [06-096 CMR 115, BPT]

C. JL shall only operate the emergency generators for periods of maintenance, emergencies when off-site power is unavailable, and ISO New England OP-4 emergencies. [06-096 CMR 115, BPT]

D. JL shall keep records for OP-4 emergencies which include the date, which generators were operated, start time and stop time for each generator, and documentation that JL was contacted by ISO New England and asked to reduce consumption as part of an OP-4 event. [06-096 CMR 115, BPT]

E. JL shall not operate the emergency generators for more than 50 hours each per calendar year in response to an OP-4 emergency. [06-096 CMR 115, BPT]

F. An hour meter shall be maintained and operated on each generator. [06-096 CMR 115, BPT]

G. A log documenting the dates, times, and reason of operation for the Emergency Generators shall be kept. [06-096 CMR 115, BPT]

H. The generators shall each fire #2 fuel oil with a sulfur limit not to exceed 0.05% by weight. Fuel records, including percent sulfur, shall be maintained. [06-096 CMR 115, BPT]

I. JL must operate and maintain aftercoolers on Generators #8, #9, and #10 designed to maintain a coolant temperature below 60°C. [06-096 CMR 115, BPT]

J. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #6	PM	0.12	06-096 CMR 103, Section 2(B)(1)(a)
Generator #8	PM	0.12	06-096 CMR 103, Section 2(B)(1)(a)
Generator #9	PM	0.12	06-096 CMR 103, Section 2(B)(1)(a)
Generator #10	PM	0.12	06-096 CMR 103, Section 2(B)(1)(a)

K. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #2	0.28	0.28	0.12	10.28	2.21	0.82
Generator #3	0.30	0.30	0.13	10.85	2.34	0.86
Generator #6	1.50	1.50	0.64	39.90	10.60	1.12
Generator #8	1.85	1.85	0.79	28.80	13.12	1.39
Generator #9	1.85	1.85	0.79	28.80	13.12	1.39
Generator #10	1.85	1.85	0.79	28.80	13.12	1.39

L. Visible emissions from the generators shall each not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(19) **Incinerator #1**

A. Incinerator #1 shall be used for the disposal of type 0 through 5 and type 7 waste only. [06-096 CMR 115, BPT]

B. Incinerator #1 shall not exceed the maximum design charging rate of 175 lbs/hour. Auxiliary fuel input to the primary and secondary chamber shall be #2 fuel with a maximum sulfur content not to exceed 0.25% by weight. [06-096 CMR 115, BPT]

C. A log shall be maintained recording the weight of waste charged, preheating time, charging time, afterburner temperature directly after charging and every 60 minutes after startup until, and including, final shutdown time, and time of final shutdown. For facilities operating a chart recorder, the start time, date, and weight of waste charged may be logged on the chart. [06-096 CMR 115, BPT]

D. JL shall keep records on a calendar quarter basis of the weight of medical/infectious waste combusted and the weight of all other fuels and wastes combusted in the co-fired combustor (Incinerator #1). JL shall not combust more than 10% medical/infectious waste by weight, as defined by the State of Maine Biomedical Waste Management Rules, 06-096 CMR 900, Sections 7.A. and 7.B., based on the total weight of waste(s) and fuel combusted, measured on a calendar quarter basis, in the co-fired combustor. [MEDEP Chapter 115, BPT]

E. The secondary chamber of Incinerator #1 shall be preheated as specified by the manufacturer to a minimum of 2000 °F prior to combusting any waste and shall be maintained at a minimum of 2000 °F during the duration of the burn. [06-096 CMR 115, BPT]

F. Once the burn cycle has commenced by introduction of primary chamber combustion, Incinerator #1 shall be operated in an efficient manner and as specified by the manufacturer for the period of time between preheat and reaching the set operational temperature to be a minimum of 2000 °F in the secondary chamber. [06-096 CMR 115, BPT]

G. A pyrometer and ¼ inch test port shall be installed and maintained at that location of the incinerator or refractory lined stack which provides sufficient volume to insure a flue gas retention time of not less than 2.0 seconds at the minimum of 2000 °F. [06-096 CMR 115, BPT]

H. Emissions from Incinerator #1 shall be limited to the following [06-096 CMR 115, BPT]:

Pollutant	gr/dscf	lb/hr
PM	0.10[a]	0.69
PM_{10}	n/a	0.69
SO_2	n/a	0.95
NO_x	n/a	2.10
CO	n/a	0.18
VOC	n/a	0.08

[a] Corrected to 7% O_2.

I. Visible emissions from Incinerator #1 shall not exceed an opacity limit of 5% based on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a one hour period. [06-096 CMR 115, BPT]

J. The ash will be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management. [06-096 CMR 115, BPT]

K. The incinerator operator(s) shall receive annual training to operate the incinerator in accordance with the manufacturer's specifications, and shall be familiar with the terms of this Air Emission License as it pertains to the operation of the incinerator. [06-096 CMR 115, BPT]

(20) **Incinerator #2**

A. Incinerator #2 shall be used for the disposal of type 0 through 4 waste only and shall not be used for the disposal of any cytotoxic (antineoplastic) drugs or any radioactive wastes. [06-096 CMR 115, BPT]

B. Incinerator #2 shall not exceed the maximum design charging rate of 175 lbs/hour. Auxiliary fuel input to the primary and secondary chamber shall be #2 fuel with a maximum sulfur content not to exceed 0.25% by weight. [06-096 CMR 115, BPT]

C. A log shall be maintained recording the weight of waste charged, preheating time, charging time, afterburner temperature directly after charging and every 60 minutes after startup until, and including, final shutdown time, and time of final shutdown. For facilities operating a chart recorder, the start time, date, and weight of waste charged may be logged on the chart. [06-096 CMR 115, BPT]

D. The secondary chamber of Incinerator #2 shall be preheated as specified by the manufacturer to a minimum of 1800 °F prior to combusting any waste and shall be maintained at a minimum of 1800 °F during the duration of the burn. [06-096 CMR 115, BPT]

E. Once the burn cycle has commenced by introduction of primary chamber combustion, Incinerator #2 shall be operated in an efficient manner and as specified by the manufacturer for the period of time between preheat and reaching the set operational temperature to be a minimum of 1800 °F in the secondary chamber. [06-096 CMR 115, BPT]

F. A pyrometer and ¼ inch test port shall be installed and maintained at that location of the incinerator or refractory lined stack which provides sufficient volume to insure a flue gas retention time of not less than 1.0 seconds at the minimum of 1800 °F. [06-096 CMR 115, BPT]

G. Emissions from Incinerator #2 shall be limited to the following [06-096 CMR 115, BPT]:

Pollutant	gr/dscf	lb/hr
PM	0.15[a]	0.69
PM_{10}	n/a	0.69
SO_2	n/a	0.95
NO_x	n/a	2.10
CO	n/a	0.18
VOC	n/a	0.08

[a] Corrected to 7% O_2.

H. Visible emissions from Incinerator #2 shall not exceed an opacity limit of 5% based on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a one hour period. [06-096 CMR 115, BPT]

I. The ash will be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management. [06-096 CMR 115, BPT]

J. The incinerator operator(s) shall receive adequate training to operate the incinerator in accordance with the manufacturer's specifications, and shall be familiar with the terms of this Air Emission License as it pertains to the operation of the incinerator. [06-096 CMR 115, BPT]

(21) JL shall operate the ethylene oxide units in accordance with the manufacturer's specifications and keep records as necessary to demonstrate emissions do not exceed 1.0 ton/year of ethylene oxide. [06-096 CMR 115, BPT]

(22) **HAP Limit**

JL shall not exceed a facility wide emission limit of 0.8 ton per year for all HAPs combined, based on a 12 month rolling total. [06-096 CMR 115, BPT]

(23) **Gasoline Storage Tank**

JL shall install and maintain a submerged fill pipe in the 2,000 gallon gasoline storage tank that is no more than 6 inches from the bottom of the tank. JL shall also maintain on its premises, records of gasoline throughput, which will allow the monthly and annual throughput to be determined. If JL's monthly or annual throughput ever exceeds the initial applicability threshold for the Stage I provisions of 06-096 CMR 118, JL shall notify the Department of its applicability within thirty (30) days and install a Stage I Vapor Balance System in accordance with Section 3(B)(1) of the regulation, within sixty (60) days. Copies of these records shall be maintained for a minimum of three (3) years. These records shall be available for inspection during normal business hours and copies shall be provided to the Department and/or EPA upon request. [06-096 CMR 118]

(24) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (last amended November 8, 2008), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

1) A computer program and accompanying instructions supplied by the Department; or
2) A written emission statement containing the information required in 06-096 CMR 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017 Phone: (207) 287-2437

The emission statement must be submitted as specified by the date in 06-096 CMR 137.

(25) JL shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 20th DAY OF May , 2009.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Burke Jr.
DAVID P. LITTELL, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 11/24/08
Date of application acceptance: 12/17/08

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.

FILED
MAY 22 2009
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE